

## AMENDMENTS TO THE CLAIMS

Please replace the claims with the following amended listing:

1. (Currently Amended) Rapid prototyping apparatus for the manufacturing of three dimensional objects by additive treatment of cross sections comprising a wholly or partially light-sensitive material, said apparatus comprising at least one light source for illumination of a cross section of the light-sensitive material by at least ~~one~~two spatial light modulators of individually controllable light modulators, wherein the at least one light source is optically coupled to a plurality of light guides arranged with respect to the spatial light modulator arrangement in such a manner that each light guide illuminates a sub-area of the cross section.
2. (Previously Presented) Rapid prototyping apparatus of claim 1 wherein each spatial modulator arrangement comprises transmissive light valves.
3. (Previously Presented) Rapid prototyping apparatus of claim 2 wherein said apparatus comprises a first lens arrangement, said first lens arrangement comprising at least one micro lens arranged with respect to each light valve in such a manner that that the emitted light by the light guide focuses on or in proximity of the optical axis of the individual light valves.
4. (Previously Presented) Rapid prototyping apparatus of claim 2 further comprising a second lens arrangement, said second lens arrangement comprising at least one micro lens arranged between the light valves and an illumination surface in such a manner that light transmitted through channels of the individual light valves is suitably focused on the illumination surface.
5. (Previously Presented) Rapid prototyping apparatus of claim 1 wherein optical fibers constitute the optical light guides.
6. (Currently Amended) ~~Illumination device~~Rapid prototyping apparatus of claim 1 wherein the at least one ~~of the~~ light sources is made of a short arc gap lamp.

7. (Previously Presented) Rapid prototyping apparatus of claim 2 wherein the individual light valves are arranged in rows in a transverse direction of a surface at a given mutual distance, said rows being mutually displaced in the transverse direction.

8. (Previously Presented) Rapid prototyping apparatus of claim 7 wherein the rows are arranged in such a manner that the projection of each individual light valve in the transverse direction on the surface results in a number of illumination points at a given mutual distance in the transverse direction.

9. (Previously Presented) Rapid prototyping apparatus of claim 1 wherein surface profiles of the spatial modulator arrangements are arranged on one or more exposure heads, said exposure heads and an illumination surface being designed to make a relative movement, said rapid prototyping apparatus being provided with a control circuitry for control of the spatial light modulator arrangements in dependency of the movement between the exposure head and the illumination surface.

10. (Previously Presented) Rapid prototype apparatus of claim 1 further comprising an exposure head comprising a bar whose relative movement over an illumination surface consists of one single progressing movement in a transverse direction of the bar.

11. (Currently Amended) Rapid prototyping apparatus of claim 1 further comprising an illumination device between the spatial light modulator arrangement and an illumination surface comprising optical means for ~~the spreading of the light~~ beams emitted by the light modulator arrangement over the illumination surface.

12. (Currently Amended) Rapid prototyping apparatus according to claim 1 wherein the modulator arrangement ~~of the illumination device includes~~ comprises the spatial light modulators such as including at least one of LCD, PDLC, PLZT, FELCD ~~or and~~ Kerr cells.

13. (Currently Amended) Rapid prototyping apparatus of claim 1 wherein the modulator arrangement ~~of the illumination device~~ iscomprises reflective electromechanical light valves.
14. (Currently Amended) Rapid prototyping apparatus of claim ~~2~~13 wherein the light guides ~~of the illumination device~~ are arranged with respect to the modulator arrangement in such a manner that optical energy furnished to each subset of light valves does not vary significantly once the subsets of light valves illuminate adjacent sub-areas in close proximity to each other on ~~the~~an illumination surface.
15. (Previously Presented) Method of manufacturing three dimensional objects by means of a rapid prototyping apparatus where a wholly or partially light-sensitive material is treated by at least one light source illuminating a cross section of the material by at least two modulator arrangements of individually controllable light modulators, wherein at least one light source is optically coupled with a plurality of light guides arranged with respect to the spatial light modulator arrangement in such a manner that each light guide illuminates a sub-area of the cross section.
16. (Previously Presented) Method of claim 15 wherein a wholly or partially light-sensitive material is placed in a layer on a plate in a container and subsequently exposed to an RP apparatus prior to creating a new layer on top of the previous layer.
17. (Currently Amended) Method of claim 15 wherein an RP apparatus is provided with a computer-aided design program wherein a 3D representation of the desired prototype ~~is~~ converted into files containing a cross section of the prototype and wherein the contents of the files are used to control the spatial light modulator arrangement.
18. (Previously Presented) Rapid prototyping apparatus of claim 5 wherein said optical fibers are multi mode fibers.
19. (Canceled)

20. (Previously Presented) Rapid prototyping apparatus of claim 13 wherein said reflective electromechanical light valves comprise DMD.

21. (New) Rapid prototyping apparatus of claim 1, wherein the plurality of light guides is disposed between the light source and the spatial light modulators.

22. (New) Rapid prototyping apparatus for the manufacturing of three dimensional objects by additive treatment of cross sections comprising a wholly or partially light-sensitive material, said apparatus comprising at least one light source for illumination of a cross section of the light-sensitive material by at least one spatial light modulator of individually controllable light modulators, wherein the at least one light source is optically coupled to a plurality of light guides arranged with respect to the spatial light modulator arrangement in such a manner that each light guide illuminates a sub-area of the cross section, wherein the plurality of light guides is disposed between the light source and the spatial light modulators.